

R307. Environmental Quality, Air Quality.**R307-328. ~~[Davis, Salt Lake, Utah and Weber Counties and]~~ Ozone Nonattainment and Maintenance Areas and Utah and Weber Counties: Gasoline Transfer and Storage.****R307-328-1. Purpose.**

The purpose of R307-328 is to establish Reasonably Available Control Technology (RACT) for control of gasoline vapors during the filling of gasoline transport vehicles and storage tanks in ozone non-attainment and maintenance areas and Utah and Weber Counties. The rule is based on federal control technique guidance documents. This requirement is commonly referred to as stage I vapor recovery.

R307-328-~~[1]~~2. Applicability~~[-and Definitions]~~.

~~[(1) Applicability.]~~

~~——(a)] (1) Transport Vehicles. R307-328 applies to the owner or operator of any gasoline tank truck, railroad tank car, or other gasoline transport vehicle that loads or unloads gasoline in~~[-Davis, Salt Lake,]~~ Utah or Weber County or any ozone nonattainment or maintenance area.~~

~~[(b)] (2) Gasoline Dispensing. R307-328 applies to the owner or operator of any bulk terminal, bulk plant, or service station located in ~~[Davis, Salt Lake,]~~ Utah~~[-]~~ or Weber County or any ozone nonattainment or maintenance area.~~

~~[(2) R307-325 establishes general requirements for R307-328. ———]~~

R307-328-3. Definitions.

~~[(3) ———]~~ The following additional definitions apply to R307-328~~[-]~~.

"Bottom Filling" means the filling of a tank through an inlet at or near the bottom of the tank designed to have the opening covered by the liquid after the pipe normally used to withdraw liquid can no longer withdraw any liquid.

"Qualified contractor" means a contractor who has been qualified by the executive secretary in accordance with R307-342 to perform vapor tightness tests on gasoline transport vehicles.

"Submerged Fill Pipe" means any fill pipe with a discharge opening which is entirely submerged when the liquid level is 6 inches above the bottom of the tank and the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid.

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~~R307-328-2. Compliance Schedule.~~

~~——(1) Sources located in Davis and Salt Lake Counties are subject to the compliance schedule in R307-325-4.~~

~~——(2) Sources located in Utah and Weber Counties shall be in compliance with R307-328 by May 1, 2000. The executive secretary may grant a one year waiver from this compliance schedule if the source submits adequate documentation that the compliance date would create undue hardship.~~

~~——(3) Sources located in any other area that is designated nonattainment for ozone shall be in compliance within six months of the date the EPA designates the area nonattainment.~~

1]

2 **R307-328-[3]4. Loading of Tank Trucks, Trailers, Railroad Tank**
3 **Cars, and Other Transport Vehicles.**

4 (1) No person shall load or permit the loading of gasoline
5 into any tank truck, trailer, railroad tank car, or other
6 transport vehicle unless the emissions from such vehicle are
7 controlled by use of a vapor collection and control system and
8 submerged or bottom filling. [~~Reasonably available control~~
9 ~~technology~~] RACT shall be required and in no case shall vapor
10 emissions to the atmosphere exceed 0.640 pounds per 1,000 gallons
11 transferred.

12 (2) Such vapor collection and control system shall be
13 properly installed and maintained.

14 (3) The loading device shall not leak.

15 (4) The loading device shall utilize the dry-break loading
16 design couplings and shall be maintained and operated to allow no
17 more than an average of 15 cc drainage per disconnect for 5
18 consecutive disconnects.

19 (5) All loading and vapor lines shall be equipped with
20 fittings which make a vapor tight connection and shall
21 automatically close upon disconnection to prevent release of the
22 organic material.

23 (6) A gasoline storage and transfer installation that
24 receives inbound loads and dispatches outbound loads ("bulk
25 plant") need not comply with R307-328-[3]4 if it does not have a
26 daily average throughput of more than 3,900 gallons (15,000 or
27 more liters) of gasoline based upon a 30-day rolling average.
28 Such installations shall on-load and off-load gasoline by use of
29 bottom or submerged filling or alternat[iv]e equivalent methods.
30 The emission limitation is based on operating procedures and
31 equipment specifications using Reasonably Available Control
32 Technology as defined in EPA documents EPA 450/2-77-026 October
33 1977, "Control of Hydrocarbons from Tank Truck Gasoline Loading
34 Terminals," and EPA-450/2-77-035 December 1977, "Control of
35 Volatile Organic Emissions from Bulk Gasoline Plants." The design
36 effectiveness of such equipment and the operating procedures must
37 be documented and submitted to and approved by the executive
38 secretary.

39 (7) Hatches of transport vehicles shall not be opened at any
40 time during loading operations except to avoid emergency
41 situations or during emergency situations. Pressure relief valves
42 on storage tanks and transport vehicles shall be set to release at
43 the highest possible pressure, in accordance with State or local
44 fire codes and National Fire Prevention Association guidelines.
45 Pressure in the vapor collection system shall not exceed the
46 transport vehicle pressure relief setting.

47 (8) Each owner or operator of a gasoline storage and
48 dispensing installation shall conduct testing of vapor collection
49 systems used at such installation and shall maintain records of
50 all tests for no less than two years. Testing procedures of vapor
51 collection systems shall be approved by the executive secretary
52 and shall be consistent with the procedures described in the EPA

document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA-450/2-78-051.

(9) Semi-annual testing shall be conducted and records maintained of such test. The frequency of tests may be altered by the executive secretary upon submittal of documentation which would justify a change.

(10) The vapor collection and vapor processing equipment shall be designed and operated to prevent gauge pressure in the delivery vessel from exceeding 18 inches of water and prevent vacuum from exceeding 6 inches of water. During testing and monitoring, there shall be no reading greater than or equal to 100 percent of the lower explosive limit measured at 1.04 inches around the perimeter of a potential leak source as detected by a combustible gas detector. Potential leak sources include, but are not limited to, piping, seals, hoses, connections, pressure or vacuum vents, and vapor hoods. In addition, no visible liquid leaks are permitted during testing or monitoring.

R307-328-[4]5. Stationary Source Container Loading.

(1) No person shall transfer or permit the transfer of gasoline from any delivery vessel (i.e. tank truck or trailer) into any stationary storage container with a capacity of 250 gallons or greater unless such container is equipped with a submerged fill pipe and at least 90 percent of the gasoline vapor, by weight, displaced during the filling of the stationary storage container is prevented from being released to the atmosphere. This requirement shall not apply to:

(a) the transfer of gasoline into any stationary storage container of less than 550 gallons used primarily for the fueling of implements of husbandry if such container is equipped with a permanent submerged fill pipe;

(b) the transfer of gasoline into any stationary storage container having a capacity of less than 2,000 gallons which was installed prior to January 1, 1979, if such container is equipped with a permanent submerged fill pipe;

(c) the transfer of gasoline to storage tanks equipped with floating roofs or their equivalent which have been approved by the executive secretary.

(2) The 90 percent performance standard of the vapor control system shall be based on operating procedures and equipment specifications. The design effectiveness of such equipment and the operating procedure must be documented and submitted to and approved by the executive secretary.

(3) Each owner or operator of a gasoline storage tank or the owner or operator of the gasoline delivery vessel subject to (1) above shall install vapor control equipment, which includes, but is not limited to:

(a) vapor return lines and connections sufficiently free of restrictions to allow transfer of vapor to the delivery vessel or to the vapor control system, and to achieve the required recovery;

(b) a means of assuring that the vapor return lines are

1 connected to the delivery vessel, or vapor control system, and
2 storage tank during tank filling;

3 (c) restrictions in the storage tank vent line designed and
4 operated to prevent:

5 (i) the release of gasoline vapors to the atmosphere during
6 normal operation; and

7 (ii) gauge pressure in the delivery vessel from exceeding 18
8 inches of water and vacuum from exceeding 6 inches of water.

9
10 **R307-328-[5]6. Transport Vehicles.**

11 (1) Gasoline transport vehicles must be designed and
12 maintained to be vapor tight during loading and unloading
13 operations as well as during transport, except for normal pressure
14 venting required under United States Department of Transportation
15 Regulations.

16 (2) The design of the vapor recovery system shall be such
17 that when the delivery tank is connected to an approved storage
18 tank vapor recovery system or loading terminal, 90% vapor recovery
19 efficiencies are realized. The connectors of the delivery tanks
20 shall be compatible with the fittings on the fill pipes and vapor
21 vents at the storage containers and gasoline loading terminals
22 where the delivery tank will service or be serviced. Adapters may
23 be used to achieve compatibility.

24 [~~2~~](3) No person shall knowingly allow the introduction of
25 gasoline into, dispensing of gasoline from, or transportation of
26 gasoline in a gasoline transport vehicle without a current Utah
27 Vapor Tightness Certificate.

28 [~~3~~](4) A vapor-laden transport vehicle may be refilled
29 only at installations equipped to recover, process or dispose of
30 vapors. Transport vehicles [~~which~~]that only service locations
31 with storage containers specifically exempted from the
32 requirements of R307-328-[4]5 need not be retrofitted to comply
33 with R307-328-[5]6(1)-(3) above, provided such transport vehicles
34 are loaded through a submerged fill pipe or equivalent equipment
35 provided the design and effectiveness of such equipment are
36 documented and submitted to and approved by the executive
37 secretary.

38
39 **R307-328-[6]7. Leak Tight Testing.**

40 (1) Gasoline tank trucks and their vapor collection systems
41 shall be tested for leakage by a qualified contractor using
42 procedures approved by the executive secretary and consistent with
43 the procedures described in R307-342.

44 (2) Gasoline tank trucks and their vapor collection systems
45 shall be tested for leakage annually between December 1 and May 1.

46 (3) The tank shall not sustain a pressure change of more
47 than 750 pascals (3 inches of H₂O) in five minutes when pressurized
48 (by air or inert gas) to 4500 pascals (18 inches of H₂O) or
49 evacuated to 1500 pascals (6 inches of H₂O).

50 (4) No visible liquid leaks are permitted during testing.

51 (5) Gasoline tank trucks shall be certified leak tight at
52 least annually by a qualified contractor approved by the executive

1 secretary.

2 (6) Each owner or operator of a gasoline tank truck shall
3 have in his possession a valid vapor tightness certification,
4 which:

5 (a) shows the date that the gasoline tank truck last passed
6 the Utah vapor tightness certification test; and

7 (b) shows the identification number of the gasoline tank
8 truck.

9 (7) Records of certification inspections, as well as any
10 maintenance performed, shall be retained by the owner or operator
11 of the tank truck for a two year period and be available for
12 review by the executive secretary or ~~his~~ the executive
13 secretary's representative.

14
15 **R307-328-8. Alternate Methods of Control.**

16 (1) Any person may apply to the executive secretary for
17 approval of an alternate test method, an alternate method of
18 control, an alternate compliance period, an alternate emission
19 limit, or an alternate monitoring schedule. The application must
20 include a demonstration that the proposed alternate produces an
21 equal or greater air quality benefit than that required by R307-
22 328, or that the alternate test method is equivalent to that
23 required by these rules. The executive secretary shall obtain
24 concurrence from EPA when approving an alternate test method, an
25 alternate method of control, an alternate compliance period, an
26 alternate emission limit, or an alternate monitoring schedule.

27 (2) Manufacturer's operational specifications, records, and
28 testings of any control system shall use the applicable EPA
29 Reference Methods of 40 CFR Part 60, the most recent EPA test
30 methods, or EPA-approved state methods, to determine the
31 efficiency of the control device. In addition, the owner or
32 operator must meet the applicable requirements of record keeping
33 for any control device. A record of all tests, monitoring, and
34 inspections required by R307-328 shall be maintained by the owner
35 or operator for a minimum of 2 years and shall be made available
36 to the executive secretary or the executive secretary's
37 representative upon request. Any malfunctioning control device
38 shall be repaired within 15 calendar days after it is found by the
39 owner or operator to be malfunctioning, unless otherwise approved
40 by the executive secretary.

41 (3) For purposes of determining compliance with emission
42 limits, volatile organic compounds and nitrogen oxides will be
43 measured by the test methods identified in federal regulation or
44 approved by the executive secretary. Where such a method also
45 inadvertently measures compounds with negligible photochemical
46 reactivity, an owner or operator may exclude these negligibly
47 reactive compounds when determining compliance with an emissions
48 standard.

49
50 **R307-328-9. Compliance Schedule.**

51 Sources located within any newly designated nonattainment
52 area for ozone shall be in compliance with this rule within 180

days of the effective date of designation to nonattainment.

KEY: air pollution, gasoline transport, ozone

**Date of Enactment or Last Substantive Amendment: [~~July 15,~~
~~1999~~]2006**

Notice of Continuation: August 5, 2003

**Authorizing, and Implemented or Interpreted Law: 19-2-101; 19-2-
104(1)(a)**